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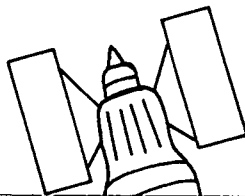
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MAY, 1973

R. M. BRECKENRIDGE

R. W. MARRS



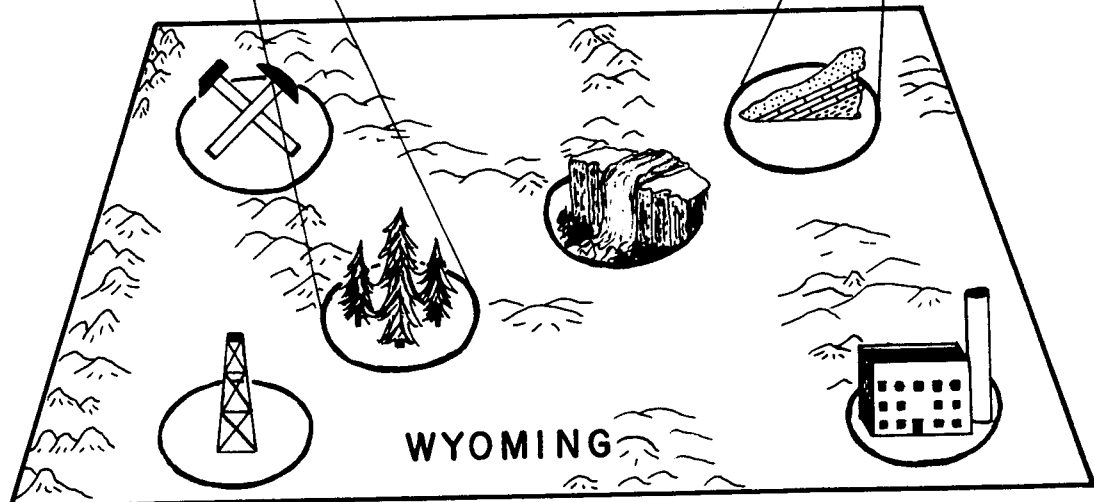
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16. Abstract During the report period (March and April, 1973) the multi-disciplinary ERP investigation at the University of Wyoming consisted largely of preparation for receipt of Skylab imagery. Supporting aircraft flight plans and contingencies were set for the Wyoming test sites and possible Skylab data collection passes. Skylab project investigators made preparations for ground truth collection during the short Wyoming Field season. Pre-launch investigations of test sites were begun using ERTS-1 satellite imagery intermediate and-high altitude aircraft data obtained in support of the Wyoming ERTS-1 study.			
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MULTIDISCIPLINARY STUDY OF WYOMING TEST SITES

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May, 1973

Monthly Progress Report
for March-April, 1973

Prepared for

JOHNSON MANNED SPACECRAFT CENTER

HOUSTON, TEXAS 77058

OVERALL STATUS

The EREP program at the University of Wyoming has, to date, involved only pre-launch activities. At present, Drs. R. S. Houston and R. W. Marrs and Mr. Roy M. Breckenridge are involved in EREP project preparations. After launch of Skylab additional investigators representing various disciplines will begin their studies.

The Remote Sensing Laboratory at the University of Wyoming, although well-equipped for the ERTS-1 project, requires additional equipment for the EREP investigations. Two additional, binocular, zoom, microscopes were added for standard photointerpretation. The zoom transfer scope was finally received in workable condition after being previously damaged in shipment. This equipment has greatly facilitated our mapping capability for both ground truth as well as aircraft and satellite imagery. A Hasselblad multiband camera system is now nearing completion and will be available for low-level support flights in areas of special requirements. Two new filter-wheel photometer systems are being designed for more efficient field measurement of spectral reflectances.

Additional storage and file space for satellite and aircraft imagery was also added.

Flight parameters and contingencies have been set for the aircraft support missions. Project investigators have been carefully planning for ground control data collection and field checks. The short Wyoming field season calls for careful management and coordination of these programs.

Intermediate- and high-altitude aircraft imagery acquired in support of the Wyoming ERTS-1 project was used in pre-launch inventories of the test sites. This imagery has been extremely valuable in delineating target areas

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and special study sites for all the investigators. Some advance study and data collection in test sites has been completed in conjunction with evaluations of the aircraft imagery. We have received and catalogued positive prints of the existing NASA missions in Wyoming. Many of these data are of excellent quality and are being annotated for field use.

Dr. Edward Decker has initiated a program aimed at developing a capability to process MSS digital tapes at the University of Wyoming Computer Center. This work is intended to provide a capability for ratioing of MSS channels in selected areas.

WORK SCHEDULE

The pre-launch phase of the Wyoming EREP investigation is essentially completed and we are ready to receive data and begin data analysis.

PROBLEMS AND RECOMMENDATIONS

At this time the EREP program is progressing smoothly, only one problem is anticipated. The unfirm status of the Skylab data collection passes has led to some confusion in planning aircraft support and data collection in the field. The large size of the Wyoming sites and the distances involved coupled with the typical Rocky Mountain weather conditions require advance knowledge of data passes to allow for proper coordination of ground truth collection with aircraft and satellite passes. A week's notice is mandatory for the maximum use of personnel and equipment and four days is necessary for even a limited ground truth effort.

SIGNIFICANT RESULTS

None during pre-launch activity.

SUMMARY OUTLOOK

The next period should include launch of Skylab and a First-Look at the imagery. We have planned for maximum use of manpower and equipment in our short field season. We hope to accomplish a reconnaissance check of all test sites. Additional spectral data will be collected and a catalogue established for the most common rock and vegetation units in Wyoming. Special areas of interest such as those containing energy resources or subject to environmental problems will be given preference when possible.